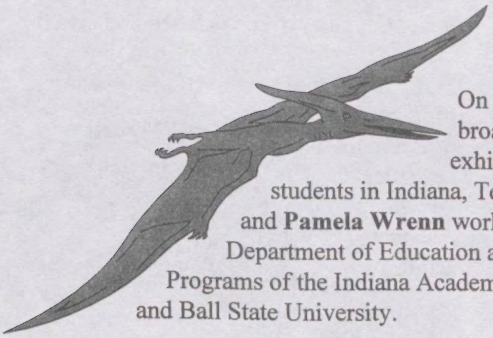
NATURAL NEWS

The Field Museum
Exploring
The Earth And Its
People

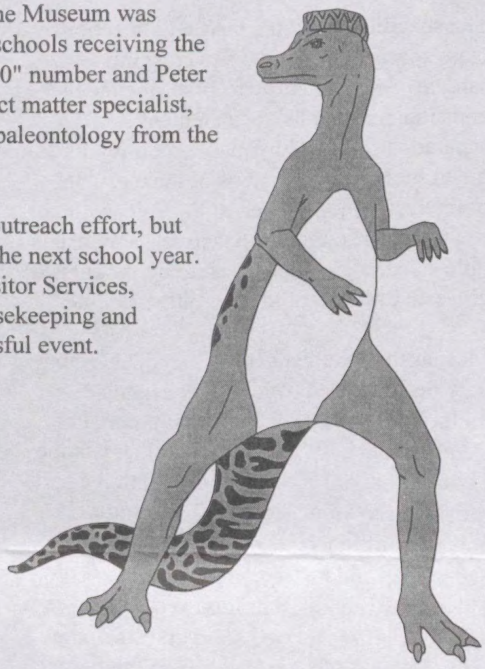
January 19, 1996



ELECTRONIC FIELD TRIP THROUGH *LIFE OVER TIME*

On Tuesday, January 16, two live television broadcasts via satellite from the **Life Over Time** exhibit brought the Field Museum to over 7,500 students in Indiana, Texas, California and Illinois. **Peter Laraba** and **Pamela Wrenn** worked on this cooperative project between the Department of Education at The Field Museum, the Office of Outreach Programs of the Indiana Academy of Science, Mathematics, and Humanities and Ball State University.

The field trip was actually a one-hour program featuring four videotaped segments about a fictional group of first graders from Indiana who had come to the Field Museum to try to identify a bone they had discovered in a building excavation near their school. The videotaped segments show the group visiting various parts of the **Life Over Time** exhibit, participating in activities with volunteers, and asking questions. During the actual broadcasts, the videotape was stopped and a live broadcast from the Museum was interspersed. Students from across the country at schools receiving the satellite broadcast were invited to call in on an "800" number and Peter Laraba, the Education Department's geology subject matter specialist, answered students' questions about dinosaurs and paleontology from the exhibit.



This was our first experience with this electronic outreach effort, but similar electronic field trips may be conducted in the next school year. We would like to thank Engineering, Security, Visitor Services, Exhibits, Facilities Planning, Special Events, Housekeeping and everyone involved who helped make this a successful event.

1996 PARKING STICKERS

The Security Services Department will begin issuing 1996 parking stickers for Museum lots to all authorized staff and volunteers on Monday , January 22 and Tuesday, January 23. Stickers will be issued on Monday at the west door between 6:30 a.m. and 8:30 a.m. On Tuesday, stickers will be issued at the north door between 7:45 a.m. and 9:00 a.m. After Tuesday, stickers may be obtained in the Equipment Office between 11:00 a.m. and 12:00 noon. Volunteers may also obtain stickers from the Volunteer Office.

NOON BALLOON

The Noon Balloon for Tuesday 16 January 1996 was presented by **Meenakshi Wadhwa,** Assistant Curator, Meteoritics and Mineralogy, Department of Geology, Field Museum. Meenakshi described research for high resolution age dating of meteoritic materials as applied to understanding events in the formation of the solar system.

Analysis of the fine structure and elemental composition of a meteorite allows one to infer the geologic process responsible for formation of that material. Meteoritic materials formed early in the evolution of our solar system contain rare-earth elements such as samarium and neodymium that exist as isotopes and their radioactive decay products. Meenakshi focused on analysis of the Caldera meteorite which is classified as an eucritic meteorite, i.e, one formed as part of basaltic lava flows of the original parent magma on an asteroid such as 4 Vesta.

The specific technique, thermal ionization mass spectrometry, involves crushing a sample of the meteorite to first separate the constituent minerals, then element separation followed by mass spectrometry to measure the isotopic ratios of the elements of interest. Since a given radiogenic isotope has a specific rate of radioactive decay, the ratio of parent isotope to its decay products gives an estimate of the age of the sample.

Meenakshi obtained data for isotopes having very different rates of decay to establish multiple estimates of age of formation. For example, the half life for decay of an isotope of samarium is 106 billion years, but the half life for decay of an isotope of chromium is only 3.7 million years. Meenakshi dated the age of the Caldera as 4.548 billion years old. This is only about 18 million years younger than the earliest formed solid objects in the solar system. This implies a more rapid rate of differentiation and basalt formation in the early solar system than previously had been considered.

The *Natural News* is edited by **Carolyn Klyce** in the President's Office. The deadline for all submissions is Tuesday at noon. Printed on recycled paper.

WE WILL TICKET *AND* TOW YOUR CAR!

Cars without disabled stickers are not allowed to park in disabled spots. Cars, whether they have disabled stickers or not, may not park in the wide spaces between disabled spots. The wide spaces must remain clear. Cars that park inappropriately under this rule will be ticketed and towed.

Staff who ignore the direction of Security officers in the Museum lot may be subject to Personnel disciplinary action.

USE OF FREIGHT ELEVATOR

The freight elevator is primarily for moving equipment and materials to different floors in the building, and is not to be used for the movement of people around the building. However, disabled persons will be allowed to use the freight elevator when it is the most convenient elevator to their work area. The use of the freight elevator by disabled people will be within the normal loading and unloading work schedule of the freight elevator. Non-disabled staff are not allowed to use the freight elevator to get to their work areas.

NEW STAFF AND VOLUNTEER ORIENTATION

Our next staff and volunteer orientation session will be held in Lecture Hall II on Friday, January 26 from 9:00 a.m. until 12:00 p.m. Recently-hired staff and volunteers are cordially invited to attend. The program includes refreshments, a presentation featuring guest speakers and a "behind-the-scenes" tour of the Museum! Check with your supervisor if you plan to attend, and call **Heidi** in Personnel (x531) to reserve your space today. Hope to see you there!